

# XX7V1A1NAM12

Ultrasonic sensors XX, ultrasonic sensor  
parallelepipedic, Sn 0.5 m, NO, M12 connector



## Main

|                               |  |
|-------------------------------|--|
| Range of product              | Telemecanique Ultrasonic sensors XX            |
| Sensor type                   | Ultrasonic sensor                              |
| Series name                   | General purpose                                |
| Sensor name                   | XX7  |
| Sensor design                 | Flat form 18 x 33 x 60 + cylindrical M18       |
| Detection system              | Diffuse  |
| [Sn] nominal sensing distance | 0.5 m adjustable with remote teach push-button |
| Material                      | Plastic  |
| Type of output signal         | Discrete                                       |
| Discrete output function      | 1 NO   |
| Wiring technique              | 3-wire   |
| Discrete output type          | NPN  |
| [Us] rated supply voltage     | 12...24 V DC with reverse polarity protection  |
| Electrical connection         | Male connector M12 4 pins                      |
| [Sd] sensing range            | 0.051...0.508 m                                |
| Beam angle                    | 12 °   |
| IP degree of protection       | IP67 conforming to IEC 60529                   |

## Complementary

|                                 |  |
|---------------------------------|--|
| Enclosure material              | Valox  |
| Front material                  | Epoxy  |
| Supply voltage limits           | 10...28 V DC   |
| [Sa] assured operating distance | 0.051...0.508 m (teach mode)                                       |
| Maximum differential travel     | 2.5 mm   |
| Blind zone                      | 0...51 mm  |
| Transmission frequency          | 300 kHz  |
| Repeat accuracy                 | 1.27 %   |
| Minimum size of detected object | Cylinder diameter 2.5 mm at 0.15 m<br>Flat bar 1 mm wide at 0.15 m |
| Status LED                      | Supply on: 1 LED (green)<br>Output state: 1 LED (yellow)           |
| Current consumption             | 40 mA  |
| Maximum switching current       | 100 mA   |
| Maximum voltage drop            | 1 V  |
| Switching frequency             | <= 40 Hz   |
| Maximum delay first up          | 100 ms   |
| Maximum delay response          | 10 ms  |
| Maximum delay recovery          | 10 ms  |
| Marking                         | CE   |
| Height                          | 44 mm  |
| Width                           | 18 mm  |
| Depth                           | 60 mm  |

## Environment

|                                       |  |
|---------------------------------------|--|
| Standards                             | IEC 60947-5-2  |
| Product certifications                | UL   |
| Ambient air temperature for operation | -20...65 °C  |
| Ambient air temperature for storage   | -40...80 °C  |
| Vibration resistance                  | +/-1 mm conforming to IEC 60068-2-6 (f = 10...55 Hz)       |
| Shock resistance                      | 30 gn in all 3 axes for 11 ms conforming to IEC 60068-2-27 |
| Resistance to electrostatic discharge | 8 kV level 4 conforming to IEC 61000-4-2                   |
| Resistance to electromagnetic fields  | 10 V/m level 3 conforming to IEC 61000-4-3                 |
| Resistance to fast transients         | 1 kV level 3 conforming to IEC 61000-4-4                   |

## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Height             | 3.600 cm |
| Package 1 Width              | 7.100 cm |
| Package 1 Length             | 9.500 cm |
| Package 1 Weight             | 58.000 g |
| Unit Type of Package 2       | S01      |
| Number of Units in Package 2 | 15       |
| Package 2 Height             | 15 cm    |
| Package 2 Width              | 15 cm    |
| Package 2 Length             | 40 cm    |
| Package 2 Weight             | 1.382 kg |

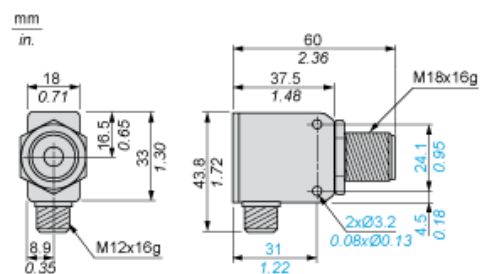
## Offer Sustainability

|  |   |
|--|---|
| Sustainable offer status                   | Green Premium product   |
| California proposition 65                  | WARNING: This product can expose you to chemicals including: Diisononyl phthalate (DINP), which is known to the State of California to cause cancer, and Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |
| For all Reach Rohs enquiries contact us at | <a href="mailto:sustainability@tesensors.com">sustainability@tesensors.com</a>  |

## Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

## Dimensions

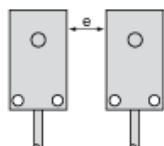


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## Minimum Mounting Distances

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### Side by side

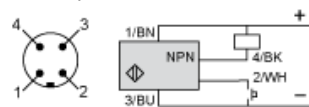


e : respect the distances indicated on the detection curves

## Wiring Diagram

### 3-Wire Type

NO outputs, NPN

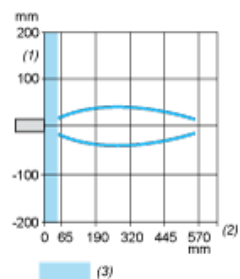


- (1) (+)
- (2) Teach input (WH)
- (3) (-)
- (4) Output
- BN Brown
- WH White
- BU Blue
- BK Black

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## Curves

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- (1) Parallel movement
- (2) Distance
- (3) Blind zone for diffuse sensors.